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FINAL REPORT
NORTH RED LODGE DUMP
CARBON COUNTY, MONTANA

JULY, 1985

STATE DOCUMENTS COLLECTION

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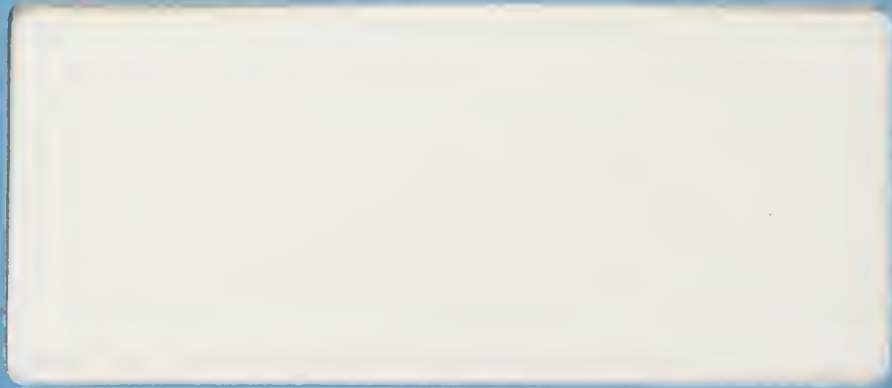
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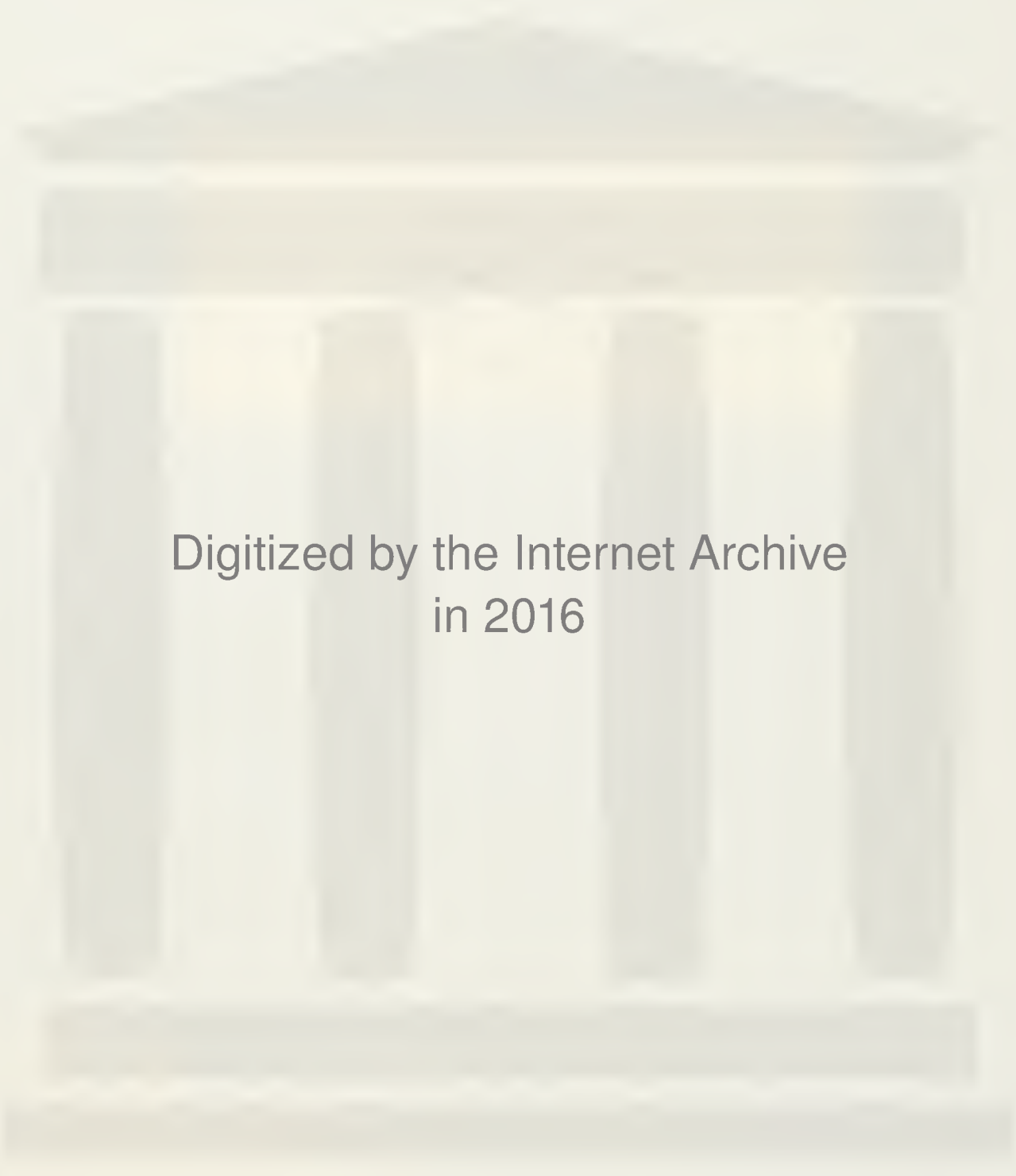
ATTENTION: Mr. Richard Juntunen, Chief
Abandoned Mine Reclamation Bureau
Department of State Lands
1625 11th Avenue
Helena, MT 59620

PREPARED BY: L. C. HANSON COMPANY
Consulting Engineers
3108 McHugh Lane
PO Box 299
Helena, MT 59624

Allan W. Nye, P.E.
Project Engineer

Clarence J. Farry
Project Inspector

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CONSULTING ENGINEERS & SURVEYORS
HELENA — GREAT FALLS — GLENDIVE



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NORTH RED LODGE DUMP

OBJECTIVE:

The project goal was to regrade the existing coal waste materials at the North Red Lodge Dump. The work also included excavation and hauling of coal waste materials from the Airport Dump to the North Red Lodge Dump, if necessary, to complete the recontouring plan and to recontour the remaining pile at the airport.

PROJECT LOCATION:

The North Red Lodge Dump is located in the northeast corner of the City of Red Lodge, between Haggin Avenue and Rock Creek, north of 6th Street. The northern part of the dump has been used by the City of Red Lodge for a solid waste disposal site for a number of years.

The Airport Dump existed in the southeast portion of the Red Lodge Airport adjacent to the main runway and the hangar complex.

PROJECT PLANNING:

The reclamation plan for this project was originally designed and engineered by Kiewit Mining and Engineering as a part of a larger project in the Red Lodge area. L. C. Hanson Company was contracted to redesign the original Red Lodge work into smaller projects.

Prior to advertising for bids, some alterations were made to the Plans and Specifications to incorporate features requested by the Red Lodge Zoological Society through their architect. These changes resulted in grade changes to fit the overall master plan for the zoo, museum, and recreational complex planned for the site.

The project was then advertised and a Contract for construction was awarded to Swan and Sons Construction of Anaconda, Montana.

WORK DESCRIPTION:

Work commenced on October 3, 1984 with the Contractor using dozers and scrapers for cut and fill operations. A water truck, motor patrol, trucks and other support equipment were used throughout the project. Salvageable car bodies were removed from the site by the County and all others were removed, crushed and buried in the deepest fills. Compaction was periodically checked throughout the project. Minimum densities were easily achieved by watering and moving construction equipment over the fill areas. Authorization for obtaining 25,300 C.Y. of topsoil was given and the topsoil was hauled to the south portion of the project and stockpiled there for future use.

The hauling of coal waste materials from the Airport Dump to the North Dump was not necessary due to the grade change made to fit the master plan just prior to bid letting and the undetermined amount of materials added to the solid waste disposal site between the time of the mapping and the start of this project. Alternate disposal sites were surveyed. It was determined that the area in the northeast portion of the airport which contained two eroded drainages and remains of a borrow pit could be used to dispose of as much material as possible from the Airport Dump thus further reducing the height of the pile. A Change Order was executed for the additional work and work commenced on December 10, 1984. The project was placed in a "Winter Shutdown" status on December 17, 1984.

Work resumed on hauling of coal waste materials from the Airport Dump on January 8, 1985 and continued until January 18, 1985. Work again resumed on hauling of coal waste materials on February 26, 1985 and continued until March 18, 1985. This resulted in the complete disposal of the Airport Dump pile thus eliminating any hazard to the flying public as well as eliminating all burning materials encountered.

Weather and ground conditions prevented any further work being undertaken until April 30, 1985. At this time, liming, topsoiling and revegetation operations commenced. The north, west, and south boundaries of the North Red Lodge Dump and the north boundary of the Red Lodge Airport were fenced.

DISCUSSION:

Approximately 1450 C.Y. of topsoil remained at the West Gravel Pit under the Airport Dump project. The Contractor was authorized to use this topsoil on the Airport Dump disposal site as far as the material would go.

Testing of the coal slack during the Contract resulted in a change in the application rate of lime. The Contractor was advised that the Owner would furnish the lime required in Red Lodge and that it would be applied at 500 lbs/acre at the North Dump site and at 200 lbs/acre at the Airport Dump disposal site. No lime or revegetation work was done at the site of the Airport Dump.

Three Change Orders were executed during the course of the Contract. These covered the addition of Additive Alternate No. 1 for furnishing and spreading topsoil, for the additional work for disposing of the coal waste materials at the Airport Dump and for the additional fencing around the south half of the North Dump site. Included in the additional work of disposing of the Airport Dump materials was the installation of a riser pipe on the inlet of an existing culvert under the Airport Road. This creates a settling basin and will allow the settling of suspended materials prior to the release of runoff downstream.

Contrary to the drought conditions experienced across most of the state and below normal snowfall recorded in Red Lodge during the last two winters, rains did fall this spring after the seeding operations were completed. Preliminary observations indicate that the revegetation work should be successful on this project.

A total of 222 calendar days were allowed to complete the project. The Contractor used 143 calendar days to complete the work.

QUANTITY SUMMARY:

NORTH RED LODGE DUMP

Total Area	60 acres
Coal Waste Materials Excavated and Placed in Embankment	446,500 C.Y.
Topsoil	25,300 C.Y.
Fencing - New Chain Link	1907 Lin Ft
New Woven Wire	3001 Lin Ft
TOTAL CONSTRUCTION COST	\$838,571.04
Cost Per Acre	\$ 13,976.18

AIRPORT DUMP

Total Area	10 Acres
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Coal Waste Materials Excavated and Disposed of at the Disposal Site	186,989 C.Y.
Fencing - New F4W Farm Fence	1111 Lin Ft
TOTAL CONSTRUCTION COST	\$ 199,001.44
Cost Per Acre	\$ 19,900.14

TOTAL PROJECT CONSTRUCTION COST	\$1,037,572.48
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COMMENTS:

The Contractor's personnel were cooperative and well versed in construction procedures. The superintendent supervised the project and did not operate equipment.

The equipment was good. Time lost by equipment failure was minimal.

The use of another firm's engineering data and quantities posed a few problems. Those estimated quantities that our firm recalculated did not agree with those determined by others. Elevations shown on the Plans did not agree with the recorded datum.

Many favorable comments have been made about the project. The public is aware that the elimination of the solid waste disposal site, recontouring of coal waste materials and the elimination of a hazard to aviation provides the City with an image improvement. Future development of the North Dump site into a zoo and recreational complex with a mining museum will assist Red Lodge with one of its major businesses, that being tourism.

The completed project complies with the Contract requirements. The L. C. Hanson Company has recommended acceptance of the project to the Department of State Lands.

started 10-2-84

Mine reclamation to start



**Ready
to roll**

RED LODGE--Scrapers sit ready to begin reclamation of the north dump site in Red Lodge. Swan and Son Contractors of Anaconda moved in early this week and is ready to begin work at the site immediately. General foreman Ken Nowak said they hope to have 90 percent of the work accomplished by Christmas, weather permitting.

Nowak said his crew should be able to complete the dirtwork portion of the job in 90 days. They plan to finish the job in the spring. Swan was awarded the contract for the general reclamation work which includes the dirtwork, fencing and mulching on the landfill site.

Mine reclamation project to begin soon

RED LODGE--Bids were opened last week and work is expected to begin soon on two Red Lodge abandoned mine reclamation projects.

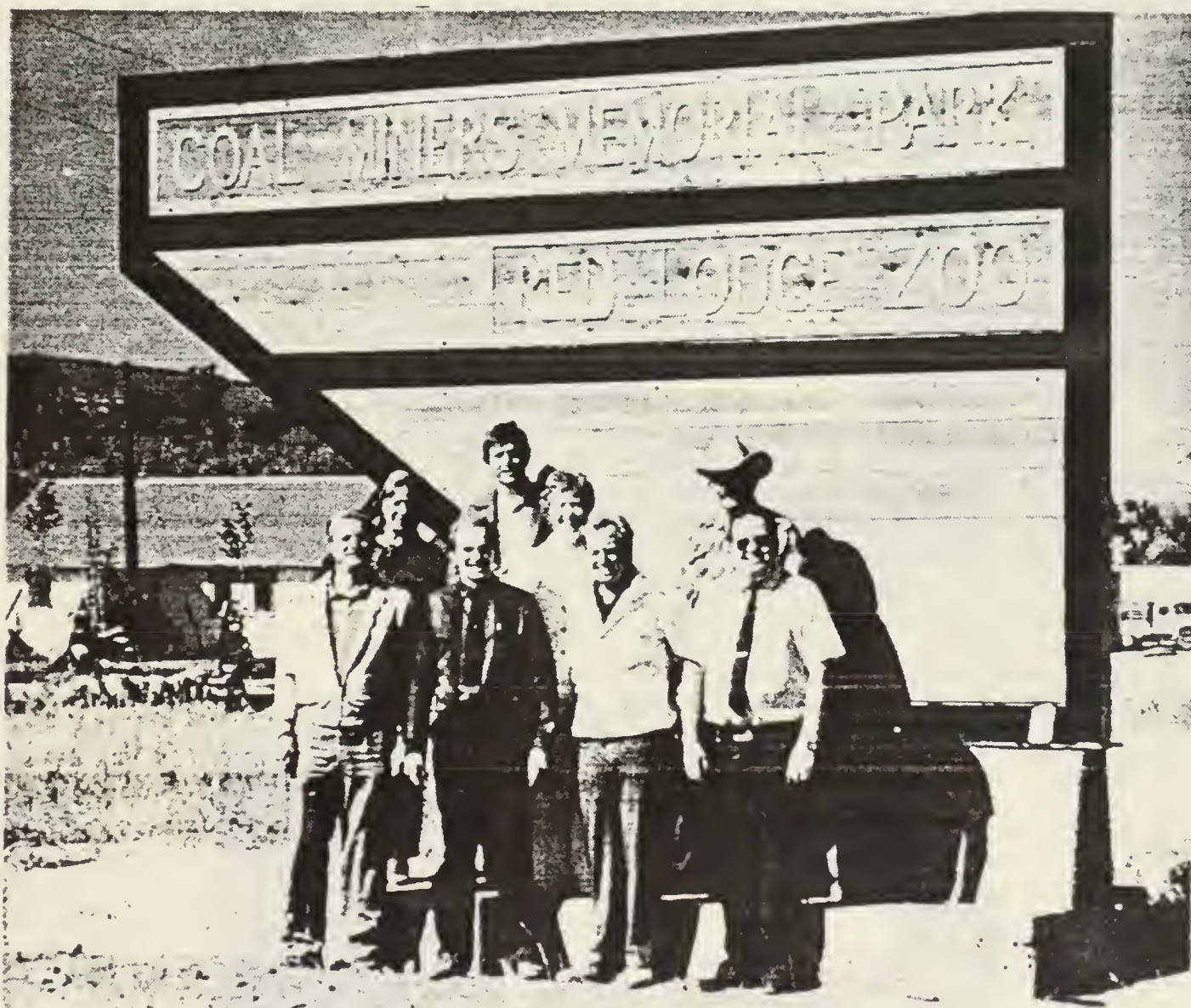
The Dept. of State Lands, Mine Reclamation Division, opened the bids last week for removal of the old West Bench mine slack pile near the airport.

Low bidder was Bryon Construction of Glendive which bid \$118,036. The state engineer's estimate for the project was \$150-250,000.

The firm winning the bid for removal of the slack pile at the old city landfill and sloping of the site for use as a zoo and

park, was Swan and Sons of Anaconda. Its bid of \$537,611 fell far short of the engineer's estimate of just over \$1 million.

Both companies are slated to begin work as soon as bonding and insurance requirements are satisfied. State officials say equipment could be on site as soon as next week.



New zoo sign goes up

The Red Lodge Zoological Society board of directors unveiled the new zoo new sign Friday afternoon. Pictured are directors [back row, l-r] Claudette Pilati, Merv Coleman, Lilo Kaleahn, and Ernie Strum; [front row, l-r] Bill Wilson, Mark Schubert, Pius Meier, and Dick Powell. The sign was constructed by Gary Harstead and Chris Olesen and is located on the north end of town.

Zoo effort moves ahead, fundraiser expected soon

RED LODGE--"Our funding through the Fish, Wildlife and Parks grant is totally taken care of and we expect the check to arrive within two weeks at the most," Dave Woodrum told the Zoological Society board of directors Wednesday, Sept. 12.

Woodrum was referring to money from a construction grant which the society obtained last year when it raised \$52,000 in matching funds. Woodrum hand-delivered the bills to FWP in Helena and walked them through the inspection process in order to get the official okay in time for last Tuesday's city council meeting.

Ernie Strum, construction committee chairman, reported that all the supplies purchased with the grant money have been delivered except for some of the plumbing supplies. A number of plumbing supplies are back-ordered and will be delivered to the site later.

Strum also told the board that the new zoo sign, completed late last week, was constructed by Chris Olsen and Gary Harstead. It was put in place last Friday afternoon.

Strum suggested that the board continue to work with Woodrum and retain him to maintain coordination between the zoological society and the state, especially during the up-

coming reclamation project. Strum's suggestion was greeted with approval, so Woodrum will continue working for the zoo and coordinating all construction efforts.

Lilo Klaehn, operations committee head, told the board of her purchase of 12 posters picturing animals that are planned for the Red Lodge Zoo. "I thought maybe we could hang these in the entrance building and then people will be able to see what we are aiming for," she told the board.

Claudette Pilati, head of the fundraising committee, brought the board up to date on the anticipated arrival and subsequent feasibility study by a professional fundraiser. The society has hired the firm of Gerald Pannis, Young and Associates of San Francisco to work on its behalf. Pannis representatives John Kirkman and Bob Meyer are expected to arrive in Red Lodge soon to begin an intense 2-3 week study which will tell the society what they can expect to raise.

Zoological Society president Dick Powell brought up the upcoming annual meeting. The event is scheduled for Oct. 16 at 7:30 p.m. in the meeting room of the LuPine Inn. The appointment of eight new directors is on the agenda, and all voting members are encouraged to attend.



Construction continues on the Red Lodge Zoo buildings. The buildings are to be "rough-finished" this year and stored on the construction site for the winter. After reclamation of the landfill site is completed next spring, the buildings will be moved to their foundations and completed.



Park tour

Zoological Society president Ernie Strum [center] points out areas of interest during a tour of the proposed Coal Miners' Memorial Park and Red Lodge Zoo sites with city and county officials last Thursday. The site has been reclaimed through the efforts of the state Bureau of Lands and will have topsoil and seeding operations completed next spring.

\$242,000 recommended for Coal Miners Park and zoo

HELENA--Coal Miners Park and the Red Lodge Zoo, already recommended for \$100,000 for an irrigation system and revegetation, is likely to receive even more than that under a second state grant. A letter writing campaign by local school children apparently played a large part in the approval.

Edrie Vinson, who has been working with the local park coalition and the zoological society, says the Dept. of Natural Resources has recommended funding of \$241,930 for the project. The grant would come from the state's Legacy program, funded by taxes on oil, gas, hard mineral and coal production in Montana.

The project was earlier recommended for \$100,000 under the state's Renewable Resource program. The new recommendation says the project should get a total of \$242,000, which could be split between the two programs or could all come from the Legacy program.

The recommendation now goes to a subcommittee of the House Appropriations Committee, then must be reviewed by the full committee and finally, acted on by the full House. Once a grant application is backed with DNRC's recommendation, there are generally few pitfalls in the legislative review and approval process.

Vinson says a letter writing campaign by Red Lodge school children played a key role in the recommendation. The group which first reviewed the Renewable Resources ap-

plication also reviewed the Legacy program proposal. The Renewable Resources application appeared threatened at one time; it was ranked 48th on a list where only 47 were likely to be funded. Vinson and Merv Coleman of the park coalition made presentations in the schools and asked students to write to the committee. The students responded and when their letters were added to those of businessmen, com-

munity leaders and government officials, the committee was impressed, Vinson says. "The campaign evoked enough interest that they removed four or five projects that were higher than ours and moved us up. We definitely impressed that committee with the seriousness of our effort."

The Legacy application is ranked 15th on the list, which virtually assures it of positive [Next page please]

Park grant...

[From previous page]

review and full funding. It will be reviewed by the same committee which received all the mail from Red Lodge school kids.

Vinson says DNRC gave a glowing recommendation to Red Lodge's request for \$242,000. DNRC said, "The project would help to provide a recreation area in a reclaimed mine dump to benefit the general public including Red Lodge residents. Benefits to the public from

vegetative plantings and an irrigation system would include the improvement of land quality by stabilizing the reclaimed area which would result in erosion control and improvement to the quality of Rock Creek. This improved water quality would enhance fish and wildlife habitat and improve recreation opportunities. New business and employment opportunities would be increased through development of the park and zoo complex."

The Carbon County News
Thursday, May 23, 1985

Reclamation is nearly done

Dear Editor,

The reclamation, grading and seeding project at the Coal Miners Memorial Park and Red Lodge Zoo site is nearing completion. On behalf of the Red Lodge Zoological Society, I would like to request your assistance in publicly thanking some of the individuals who have been so supportive of the park and zoo.

Ben Mundie, project director for the Dept. of State Lands; Clarence Fury, project supervisor, Hansen Engineering, Helena, and Ken Noack, construction superintendent, Swan Construction of Anaconda, have all been most cooperative and willing supporters. Thanks to their efforts the concept of the park and zoo and its unique requirements were incorporated into the grading, con-

touring and fencing at the site. Existing stands of native trees were preserved. The park's entrances, roads, ball fields, parking areas and the zoo's animal habitat areas were planned for and rough graded. Fencing design and construction was changed and improved. The people of Red Lodge have benefited by substantial savings in construction costs and the zoo and park are much nearer completion because of the efforts of these men. They have our sincere appreciation.

Ernest C. Strum President
Red Lodge Zoological Society

More construction for new zoo



Zoo on the move

The new Red Lodge Zoo buildings were moved onto the zoo site late last week. The buildings were blocked up until concrete foundations can be poured. The moving work was done by Bill Kraske Housemovers of Billings. Gary's Construction is in charge of the foundations and the excavation was done by Paul Pilati.

Story on next page

RED LODGE-- On-site construction of the new Red Lodge Zoo got underway last week as the entrance and administration buildings were moved to the site and set on blocks. The buildings were constructed off-site last summer while the old city landfill, destined to become the site of the new zoo, was reclaimed.

Construction committee chairman Paul Pilati says the buildings will be left on blocks until concrete foundations are completed. The concrete work will be done by Gary Harstead of Gary's Construction, who bid \$3,570 on the project. The excavation was done free of charge by Pilati. Bill Kraske of Billings was in charge of moving the buildings to the zoo site.

Other construction projects planned by the zoological society this year include widening of the main entrance road, North Second Street, to the zoo and park area. The entrance now passes through a construction company storage area and is just 15 feet wide. Pilati says the road will be widened to 60 feet for a distance of 270 feet, from the intersection at North Haggin to the park boundary. The

work will include installing a culvert, fill material, gravel and a 24-foot gate.

Pilati says the zoological society is in the process of learning more about a Burlington Northern grant which, if obtained, would enable the zoological society to complete the interior of the entrance buildings this year. The work will cost about \$25,000, he says.

Fencing the perimeter of the zoo and park is to be completed this week. Crews are installing 32-inch woven wire

with two strands of barbed wire at the top around the park. Chainlink material will encircle the zoo property.

Pilati expects to see construction begin soon on new baseball diamonds, but notes that all construction depends on funding. "We won't know what we can do until we learn the extent of the funding that's available," he says. "We're waiting to hear from our fundraiser now." He added, with an optimistic smile, "We'll get it done one way or the other."

